

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 209546-82313	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/US2004/026322	International filing date (day/month/year) 11.08.2004	Priority date (day/month/year) 12.08.2003	
International Patent Classification (IPC) or national classification and IPC B60R13/02			
Applicant INTIER AUTOMOTIVE INC. et al.			

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 8 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☒ sent to the applicant and to the International Bureau a total of 1 sheets, as follows:
 - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand 26.05.2005	Date of completion of this report 03.11.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840	Authorized Officer Busuiocescu, B Telephone No. +49 30 25901-530 

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-4 as originally filed

Claims, Numbers

1-8 filed with telefax on 27.01.2005

Drawings, Sheets

1/1 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
 4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2,7,8
	No: Claims	1,3,4,5,6
Inventive step (IS)	Yes: Claims	
	No: Claims	1-8
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

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Re Item V III.

1. The application does not meet the requirements of Article 6 PCT, because claims 1,2,7 and 8 are not clear.
 - 1.1 The feature "...wherein said layer of metalized film forms an exterior surface of the vehicle panel proximate to a source of heat when the vehicle panel is in use" in the apparatus claim 1 relates to a method of using the apparatus rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.
 - 1.2 The term "compatible" used in claim 2 is vague and unclear and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.
 - 1.3 The relative term "is positioned nearest to a vehicle roof" used in claim 7 relates to a method of using the apparatus rather than clearly defining the apparatus in terms of its technical features. The term "nearest" has further no well-recognised meaning. It leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.
 - 1.4 The feature "...whereby the metalized film forms an exterior surface of the vehicle panel proximate to a source of heat when the vehicle panel is in use" in claim 7 relates to a method of using the apparatus rather than clearly defining the method of manufacturing the apparatus itself. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.

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Re Item V

1. Reference is made to the following documents:

D1: US-A-4 068 034 (SEGAWA MASAHIRO ET AL) 10 January 1978
D2: EP-A-0 412 346 (GEN ELECTRIC) 13 February 1991

2. INDEPENDENT CLAIMS 1 and 8

- 2.1 The above-mentioned lack of clarity notwithstanding, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT, and therefore the criteria of Article 33(1) PCT are not met.

The document D1 discloses:

A vehicle panel (column 3, line 20), comprising: a core layer (6), and a layer of metalized film (see Fig.2; the metalized film is (3) in combination with (4)) bonded to said core layer (6), wherein said layer of metalized film (see Fig.2; the metalized film is (3) in combination with (4)) forms an exterior surface (3) (see column 3, lines 21-24) of the vehicle panel (column 3, line 20) proximate to a source of heat when the vehicle panel (column 3, line 20) is in use.

- 2.2 The above-mentioned lack of clarity notwithstanding, the subject-matter of claim 8 does not involve an inventive step in the sense of Article 33(3) PCT, and therefore the criteria of Article 33(1) PCT are not met.

- 2.2.1 The document D2 is regarded as being the closest prior art to the subject-matter of claim 8, and discloses:

A method of manufacturing a vehicle panel (column 1, lines 32-35), comprising the steps of:
positioning a core layer (520) on a first mold half of a mold tool; positioning a film (column 9, lines 46-53) (512') on a second mold half of the mold tool (see

Fig.6); and applying heat to the core layer (520) and closing the first and second mold halves such that the heat from the core layer (520) is transferred to the metalized film (512'), whereby the metalized film (512') becomes formable and bonds to the core layer (520).

2.2.2 The subject-matter of claim 8 therefore differs from this known document D2 in that:

- the film is a metalized film
- the core layer is heated before closing the mold
- the metalized film forms an exterior surface of the vehicle panel proximate to a source of heat when the vehicle panel is in use.

2.2.3 The use of a metalized film is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to have an according surface of the vehicle panel (see D2, column 9, lines 50-53).
It is as well generally known to the person skilled in the art that applying heat to the core layer before closing the mold is an equivalent to applying heat to the core layer after closing the mold and can be interchanged with that feature where circumstances make it desirable.
The feature that "the metalized film forms an exterior surface of the vehicle panel proximate to a source of heat when the vehicle panel is in use" has already been employed for the same purpose in D1 (see D1, column 3, lines 21-24). It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply this features with corresponding effect to the disclosure of D2, thereby arriving at the subject-matter of current claim 8.

3. Dependent claims 2-7 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

3.1 The technical feature of claim 2
"... wherein said layer of metalized film is made of a material that is compatible with said core layer"

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are known from D2 (column 9, lines 53-56).

The feature is merely one of several straightforward possibilities of bonding the metalized film to the core layer, from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to form a strong bond.

- 3.2 The technical feature of claim 3
"... wherein said layer of metalized film comprises polyethylene terephthalate (PET)"
are known from D1 (column 4, lines 51-59).
The subject-matter of claim 3 is not new in the sense of Article 33(2) PCT.
- 3.3 The technical feature of claim 4
"... wherein said core layer (12) is made of an insulating material"
are known from D1 (column 2, lines 59-68).
The subject-matter of claim 5 is not new in the sense of Article 33(2) PCT.
- 3.4 The technical feature of claim 5
"... wherein said core layer comprises polypropylene material"
are known from D1 (column 2, line 65).
The subject-matter of claim 5 is not new in the sense of Article 33(2) PCT.
- 3.5 The technical feature of claim 6
"... wherein said vehicle panel comprises a headliner"
are known from D1 (column 5, lines 6-11).
The subject-matter of claim 5 is not new in the sense of Article 33(2) PCT.
- 3.6 The technical feature of claim 7
"... wherein said layer of metalized film is positioned nearest to a vehicle roof when the vehicle panel is in use" relates to an obvious design procedure which comes within the scope of the customary practice followed by persons skilled in the art, especially as the advantage of minimizing the thickness of the vehicle panel structure can readily be foreseen. Consequently, the subject-matter of claim 7 lacks an inventive step.

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Claims

What is claimed is:

1. A vehicle panel (10), comprising:
a core layer (12), and
a layer of metalized film (14) bonded to said core layer (12), wherein said layer of metalized film (14) forms an exterior surface of the vehicle panel (10) proximate to a source of heat when the vehicle panel (10) is in use.
2. The vehicle panel of Claim 1, wherein said layer of metalized film (14) is made of a material that is compatible with said core layer (12).
3. The vehicle panel of Claim 2, wherein said layer of metalized film (14) comprises polyethylene terephthalate (PET).
4. The vehicle panel of Claim 1, wherein said core layer (12) is made of an insulating material.
5. The vehicle panel of Claim 4, wherein said core layer (12) comprises polypropylene material.
6. The vehicle panel of Claim 1, wherein said vehicle panel (10) comprises a headliner.
7. The vehicle panel of Claim 6, wherein said layer of metalized film (14) is positioned nearest to a vehicle roof when the vehicle panel (10) is in use.
8. A method of manufacturing a vehicle panel (10), comprising the steps of:
positioning a core layer (12) on a first mold half of a mold tool;
positioning a metalized film (14) on a second mold half of the mold tool;
and
closing the first and second mold halves and applying heat to the core layer (12) such that the heat from core layer (12) is transferred to the metalized film (14), whereby the metalized film (14) becomes formable and bonds to the core layer (12), and whereby the metalized film (14) forms an exterior surface of the vehicle panel (10) proximate to a source of heat when the vehicle panel (10) is in use.